

REMARKS

Claims 1-35 are pending in the present application. By this amendment, Claims 12 and 25 are amended. Applicants respectfully request reconsideration of the present claims in view of the foregoing amendments and the following remarks.

I. Formal Matters:

Rejections under 35 U.S.C. § 112, second paragraph

Claims 1-35 were rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite. This rejection is respectfully traversed.

Claims 1 and 30 were rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for use of the term “substantially water-free”. This rejection is respectfully traversed. It is well established that Applicants may be their own lexicographer. As set forth in the Specification at page 9, lines 28-33, the term “substantially water-free” is defined. As such, this term is defined and is, therefore, not indefinite. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 1, 13-14, 17, 26-27 and 30 were rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite as not being ascertainable as to the entity that said contents are being based on. This rejection is respectfully traversed. The Examiner has provided no actual comments regarding exactly what is allegedly wrong with these claims. As such, Applicants are unclear as to how these claims are indefinite. These claims define a substantially water-free material. The material may be a thermoplastic article, which was defined as including films and fibers (See e.g. Claims 15 and 16). As set forth above, “substantially water-free” is defined and is definite. The material includes two materials, an unmodified polyvinyl alcohol and a thermoplastic elastomer. The two weight percents given can add up to 100%, so this would be definite as to the amounts of each involved. As a thermoplastic elastomer is a well known compound, it is presumed that this term cannot be indefinite, especially as possible elastomers are provided (See e.g. Claim 12). As Applicants have defined a “modified” polyvinyl alcohol at page 2, line 32 to page 3, line 2, any PVOH that is not “modified” would, by default, be “unmodified”. As such, the term “unmodified polyvinyl alcohol” is defined. Therefore, since all of the terms in the claims are defined or well-known, and as the final material is comprised of these two compounds, and as the amounts of these two compounds add up to 100%, Applicants

are at a loss to understand exactly what is allegedly indefinite with these claims. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 12 and 25 were rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for not using proper Markush language. This rejection is respectfully traversed. Support for the claim language used by Applicants can be found in several places, e.g., Appendix A1 (PCT) of the M.P.E.P. (Specifically, Example 20, p. A1-44 of the July 1998 edition). Training Materials for Examining Patent Applications with Respect to 35 U.S.C. Section 112, First Paragraph - Enablement Chemical/Biotechnical Applications, released August, 1996. (Specifically, Example H and J). These examples make it clear that the phrase “X selected from A, B, and C” is proper claim language. Moreover, M.P.E.P § 2173.05(h) also states:

Alternative expressions are permitted if they present no uncertainty or ambiguity with respect to the question of scope or clarity of the claims.

When materials recited in a claim are so related as to constitute a proper Markush group, they may be recited in the conventional manner, or alternatively. For example, if “wherein R is a material selected from the group consisting of A, B, C, and D” is a proper limitation, then “wherein R is A, B, C or D” shall also be considered proper.

(Emphasis added). As Applicants have amended Claims 12 and 25 to use “selected from” and “and” and as the scope of the claims is not ambiguous, Applicants respectfully submit that the claim language used is not vague. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 12 and 25 were also rejected under 35 U.S.C. § 112, second paragraph as allegedly being indefinite for the terms “copolymers of polyethylene oxide and polybutylene terephthalate” and “styrenic”. Applicants have amended Claims 12 and 25 to more clearly define these terms. Accordingly, Applicants respectfully request withdrawal of this rejection.

II. Prior Art Rejections:

Claim 30 is rejected under 35 U.S.C. §102(b) as being anticipated by or, alternatively under 35 U.S.C. §103(a) as being unpatentable over, Japan 1126373. This rejection is respectfully traversed.

Claim 30 is directed to, *inter alia*, a substantially water-free blend composition comprising from about 1 to about 99% by weight of an unmodified polyvinyl alcohol and from about 99 to about 1% by weight of a thermoplastic elastomer.

Japan 1126373 a water-absorbing and swelling resin composition produced by compounding (A) 100 parts by weight of a resin composed of (a) 95-40 parts by weight of a thermoplastic elastomer and (b) 5-60 parts by weight of a polyolefin with (B) 50-20 parts by weight of a water-absorbing resin, which may be a PVOH-vinyl acetate copolymer; and a minimal amount of an antioxidant.

It is respectfully submitted that Japan 1126373 fails to teach or suggest Applicants' claimed invention. Japan 1126373 discloses compositions having a PVOH-vinyl acetate copolymer. As set forth, Applicants use an "unmodified" PVOH, not a "modified" PVOH. As defined at page 2, line 29 to page 3, line 2, a "modified" PVOH is one that has been chemically modified. A copolymer of PVOH and vinyl acetate necessarily defines a "modified" PVOH as the PVOH is chemically modified with vinyl acetate to form the copolymer. As such, Japan 1126373 fails to teach or suggest an "unmodified" PVOH and, therefore, fails to teach or suggest Applicants' claimed invention. Additionally, since the Japan 1126373 compositions are designed to be water-absorbing and swelling resins, whereas Applicants' claimed compositions are designed to be used to form thermoplastic films and fibers, it would not have been obvious to use unmodified PVOH in the Japan 1126373 resins as this would destroy the intended purpose of Japan 1126373. Accordingly, it is respectfully submitted that Japan 1126373 fails to teach or suggest Applicants' claimed invention.

For at least the reasons given above, Applicants respectfully submit that Claim 30 is allowable over the art of record. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 1-35 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent No. 4,349,644 to Iwanami et al (hereafter "Iwanami"). This rejection is respectfully traversed.

Claim 1 is directed to, *inter alia*, a substantially water-free thermoplastic article comprising from about 1 to about 99% by weight of an unmodified polyvinyl alcohol and from about 99 to about 1% by weight of a thermoplastic elastomer. Claim 17 is directed to, *inter alia*, a thermoplastic article comprising from about 1 to about 99% by weight of an unmodified polyvinyl alcohol and from about 99 to about 1% by weight of a thermoplastic elastomer, wherein the thermoplastic article has less than about 2.0 percent by weight of water. Applicants' description of Claim 30 may be relied upon as above.

Iwanami is directed to hydrolyzed ethylene polyvinyl acetate compositions. These compositions have an ethylene content in the range of 20-55% by mole (col.2, lines 29-30).

It is respectfully submitted that Iwanami fails to teach or suggest Applicants' claimed invention. As before, Iwanami teaches a polyvinyl alcohol that has been chemically modified and is, therefore, not an "unmodified" polyvinyl alcohol as claimed by Applicants. The Examiner states that it would have been obvious to substitute any commercially available PVOH for the PVOH disclosed in Iwanami with some reasonable expectation of success. However, the Examiner provides absolutely no basis on which to base this finding of obviousness. As clearly set forth in the Specification, to use PVOH in thermoplastic articles, has, in the past, required that the PVOH be chemically modified, that a plasticizer be used, or that water be added. Therefore, in its unmodified form, PVOH has never before been used in thermoplastic applications. Accordingly, there could not have been some reasonable expectation of success when it had never been done before. However, Applicants discovered that unmodified PVOH could, under certain circumstances, be used in thermoplastic applications. This discovery was surprising and unexpected. As shown in the Specification, not all polyvinyl alcohols may be used in a thermoplastic article in an unmodified form. As such, the discovery of those polyvinyl alcohols that could be used was not simple experimentation. To allege that an unmodified PVOH could be substituted for a modified PVOH without any motivation, either express or implied, in Iwanami, especially when there could have been no expectation for success based on the fact that no one before had been able to make such a substitution, can only be based on improper hindsight reasoning. Therefore, it is respectfully submitted that Iwanami fails to teach or suggest Applicants' claimed invention.

For at least the reasons given above, Applicants respectfully submit that Claim 1 and Claim 17 are allowable over the art of record. Furthermore, since Claims 2-16 and 18-35

recite additional claim features and depend from Claim 1 or Claim 17, these claims are also allowable over the art of record. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 1-35 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over U.S. Patent No. 6,262,175 to Jury et al (hereafter "Jury"). This rejection is respectfully traversed.

Applicants' description of the invention may be relied upon as above.

Jury is directed to thermoplastic elastomer compositions containing vulcanized rubber crumb, polyolefin, an elastomer, a vinyl polymer (such as PVOH) and other known additives.

It is respectfully submitted that Jury fails to teach or suggest Applicants' claimed invention. As before, Jury teaches a polyvinyl alcohol that has been chemically modified and is, therefore, not an "unmodified" polyvinyl alcohol as claimed by Applicants. The vinyl polymer having oxygen-containing pendant groups are chemically modified due to the affinity between the oxygen-containing pendant groups and polar sites on the vulcanized rubber polymer (col. 4, lines 38-42). As such, Jury fails to teach or suggest an "unmodified" PVOH. Again, the Examiner states that it would have been obvious to substitute any commercially available PVOH for the PVOH disclosed in Jury with some reasonable expectation of success. However, once again, absolutely no basis has been provided upon which to base this finding of obviousness. As clearly set forth in the Specification, to use PVOH in thermoplastic articles, has, in the past, required that the PVOH be chemically modified, that a plasticizer be used, or that water be added. Therefore, in its unmodified form, PVOH has never before been used in thermoplastic applications. Accordingly, there could not have been some reasonable expectation of success when it had never been done before. However, Applicants discovered that unmodified PVOH could, under certain circumstances, be used in thermoplastic applications. This discovery was surprising and unexpected. As shown in the Specification, not all polyvinyl alcohols may be used in a thermoplastic article in an unmodified form. As such, the discovery of those polyvinyl alcohols that could be used was not simple experimentation. To allege that an unmodified PVOH could be substituted for a modified PVOH without any motivation, either express or implied, in Jury, especially when there could have been no expectation for success based on the fact that no one before had been able to make such a substitution, can only be based on improper

hindsight reasoning. Therefore, it is respectfully submitted that Jury fails to teach or suggest Applicants' claimed invention.

Additionally, Jury is directed to vulcanized rubbers that are used for tires, etc. There is, however, no teaching or suggestion to use these compounds in thermoplastic articles, such as films and fibers, and the use of these films and fibers in personal care articles. Finally, Jury uses, at most, 30% PVOH. As such, Applicants are confused as to the basis the Examiner is using Jury to teach or suggest the subject matter claimed in Claims 13-16, 26-29 and 31-35 as there is no teaching and no suggestion in Jury that would render obvious the subject matter claimed in these claims.

For at least the reasons given above, Applicants respectfully submit that Claim 1 and Claim 17 are allowable over the art of record. Furthermore, since Claims 2-16 and 18-35 recite additional claim features and depend from Claim 1 or Claim 17, these claims are also allowable over the art of record. Accordingly, Applicants respectfully request withdrawal of this rejection.

III. Conclusion:

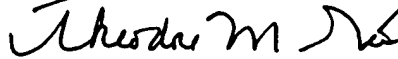
For at least the reasons given above, Applicants respectfully submit that claims 1-35 define patentable subject matter. Accordingly, Applicants respectfully request allowance of these claims.

The foregoing is submitted as a full and complete Response to the First Office Action mailed July 2, 2002, and early and favorable consideration of the claims is requested.

Should the Examiner believe that anything further is necessary in order to place the application in better condition for allowance, the Examiner is respectfully requested to contact Applicants' representative at the telephone number listed below.

No additional fees are believed due; however, the Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, to Deposit Account No. 11-0855.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Amendments in the Claims

In accordance with 37 C.F.R. 1.121(c), the following versions of the specification and claims as rewritten by the foregoing amendments show all changes made relative to the previous version of the specification and claims.

In The Claims:

Please amend the claims as follows:

12. (Amended) The thermoplastic article of Claim 1, wherein the thermoplastic elastomer is selected from polystyrene-polybutadiene-polystyrene block polymer, polystyrene-polyisoprene-polystyrene block polymer, polystyrene-poly(ethylene-butylene)-polystyrene block polymer, polystyrene-poly(ethylene-propylene)-polystyrene block polymer, elastomeric polyurethanes, ethylene-octene copolymers, polyester polyurethane, natural rubber, nitrile rubber, butyl rubber, ethylene-propylene terpolymers, silicone rubber, polyurethane rubber, thermoplastic rubbers, elastomeric block copolymers, [copolymers of polyethylene oxide and polybutylene terephthalate] polyethylene oxide-polybutylene terephthalate copolymers, polyamide-polyether block copolymers, [styrenic] styrene block copolymers, elastomeric polypropylene, [or] and mixtures thereof.

25. (Amended) The thermoplastic article of Claim 17, wherein the thermoplastic elastomer is selected from polystyrene-polybutadiene-polystyrene block polymer, polystyrene-polyisoprene-polystyrene block polymer, polystyrene-poly(ethylene-butylene)-polystyrene block polymer, polystyrene-poly(ethylene-propylene)-polystyrene block polymer, elastomeric polyurethanes, ethylene-octene copolymers, polyester polyurethane, natural rubber, nitrile rubber, butyl rubber, ethylene-propylene terpolymers, silicone rubber, polyurethane rubber, thermoplastic rubbers, elastomeric block copolymers, [copolymers of polyethylene oxide and polybutylene terephthalate] polyethylene oxide-polybutylene terephthalate copolymers, polyamide-polyether block copolymers, [styrenic] styrene block copolymers, elastomeric polypropylene, [or] and mixtures thereof.